

## MEDICINE BOW NATIONAL FOREST

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### Revised Land and Resource Management Plan Final Environmental Impact Statement

# The Alternatives

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## Introduction

This chapter summarizes the differences between the alternatives that were considered during revision of the 1985 Plan. It contains the following four discussions:

- ♦ Development of the alternatives.
- ♦ Description of each alternative.
- ♦ Alternatives considered but eliminated from detailed study.
- ♦ Comparison of the alternatives. This discussion summarizes the effects of the alternatives described in detail in Chapter 3.

## Changes between Draft and Final

Alternative D FEIS, as described in the FEIS, is a modification of Alternative D described in the DEIS. The differences between Alternative D DEIS and D FEIS resulted in changes to the environmental consequences disclosed in the DEIS. This modified alternative (D FEIS) is within the range of alternatives described and analyzed in the DEIS. The modifications are the result of comments and additional analysis conducted between draft and final.

## Development of the Alternatives

After the six major revision topics described in Chapter 1 were identified, the interdisciplinary team (ID Team) considered potential changes to the 1985 Plan based on the revision topics.

In October of 1999, a Notice of Intent (NOI) was published in the Federal Register. The NOI contained a description of the Forest Service Proposed Action based on the six major revision topics. Comments were received from the public and analyzed in order to develop alternatives to the proposed action.

A wide range of alternative themes was developed to address these comments and describe the major characteristics of the alternatives. Descriptions of six alternative themes were shared with the public at a series of open houses, in Forest Plan Revision Newsletters, and on the Internet in November of 2001. Based on public

## THE ALTERNATIVES

comment, the alternative themes were modified to meet public desires (Alternatives B and D). A restoration alternative was combined with the proposed action and was named Alternative E. Additional alternative themes were developed, including three alternatives, which were proposed by interested groups of citizens. These three alternatives when described in detail became Alternatives C, F and G. Alternative A represented the No Action or 1985 Plan, as amended.

The Forest Service utilized these themes as the general guidance for mapping the alternatives. Utilizing local Ranger District personnel with extensive on-the-ground knowledge of the forest, Management Area maps were developed for each of the seven alternative themes.

The alternative maps were then presented to the public for review at a series of open houses, in the Forest Plan Revision Newsletter, and on the Internet in March 2002. Based on public comment, the alternatives were modified again and an additional alternative was proposed by interested citizens. This new alternative was named Alternative H.

Eight alternatives, including Alternative A (No Action), were presented to the Regional Forester and key Regional Staff in April 2002. Based on the Major Revision Topics addressed by each alternative, comparison of major differences between alternatives, responsiveness of the alternatives to the Forest Service Mission and applicable laws and regulations, the Regional Forester selected a range of six alternatives to analyze in detail for the Draft Environmental Impact Statement (DEIS). The remaining two alternatives (G and H) were used as benchmarks and were summarized in the DEIS for the six Major Revision Topics, as well as additional key issues related to the alternatives (livestock grazing, economics, and water yield).

In January 2003, the DEIS was officially released for public review. Alternative D was identified as the agency preferred alternative in the DEIS. Based on public review of the DEIS, Preferred Alternative D was modified to address key concerns. This revised alternative is identified in this document as Alternative D FEIS. The original Preferred Alternative D is now identified as D DEIS. Analysis results for these alternatives along with Alternatives A, B, C, E, and F are displayed in Chapter 3 of the FEIS. Data for the benchmark alternatives G and H have been removed from the FEIS since they were used only as benchmarks for the major revision topics and were not considered in detail.

## Important Points About all Alternatives

All alternatives represent, to varying degrees, the philosophies of multiple-use and ecosystem management. The alternatives provide basic protection for the forest resources and comply fully with environmental laws. The alternatives are implementable and fully achievable. As directed by federal law, Forest Service

policy and regulations, and guidance described in the 1992 Rocky Mountain Regional Guide, all the alternatives will:

- ◆ Maintain basic soil, air, water and land resources.
- ◆ Provide a variety of life through management of biologically diverse ecosystems, though they may differ in how they emphasize native plant and animal management.
- ◆ Provide recreation opportunities and maintain scenic quality in response to the needs of National Forest users and local communities. Protect heritage resources in accordance with applicable laws and regulations, while also providing recreational and educational opportunities.
- ◆ Sustain multiple-uses, products and services in an environmentally acceptable manner. This includes timber harvest, livestock grazing, locatable and leasable minerals extraction, and recreational uses.
- ◆ Through cooperation with other landowners, place emphasis on improved landownership and access patterns that benefit both private landowners and the public.
- ◆ Improve financial efficiency for most programs and projects by minimizing expenses, recognizing that not all programs and projects produce revenue.
- ◆ Emphasize cooperation with individuals, organizations, Indian Tribes and other agencies to coordinate the planning and implementation of projects.
- ◆ Promote rural development opportunities to enrich rural cultural life, enhance the environment, provide employment and improve rural living conditions.

In all alternatives, including Alternative A, the No Action Alternative, regional management area prescriptions were used. This is done to ensure consistency with other Forests in Region 2.

Although a Plan is not a budget document, budget estimates have been prepared for each alternative at two funding levels to project activities and outcomes; desired budget level and experienced budget level. Historically, the Forest Service has not received the funds necessary to fully implement its management plans. The budget estimates were allocated among programs based on the theme of each alternative, the expected activities and outcomes, and supporting program expenditures to deliver the activities and outcomes. The desired budget level is the level necessary to fully implement each alternative. The experienced budget level is the level that reflects current funding and estimates of activities and outcomes that can be expected if funding remains constant. Budget information is shown in the Supplemental tables, which were moved to the Revised Plan-Appendix H.

## The Selected Alternative

The responsible official, the Regional Forester for the Rocky Mountain Region, has identified Alternative D FEIS as the selected alternative in this FEIS. The Regional Forester's official decision and rationale for that decision are contained in the Record of Decision (ROD), which accompanies this document.

## Description of Each Alternative

Alternatives differ from each other in the way they respond to revision topics. They address changes to each component of the 1985 Plan: standards and guidelines, management area allocations, monitoring and evaluation, allowable sale quantity, oil and gas leasing availability, wilderness recommendations, identification of eligible wild and scenic rivers, and potential research natural areas.

The following table compares the management area prescriptions in the 1985 Plan with the updated prescriptions used in the Revised Plan.

Table 2-1. Management Area Prescriptions Analyzed in the FEIS.

New Management Area Prescriptions		Management Areas in the 1985 Plan
1.13	Wilderness, Semi-primitive	8C
1.2	Recommended for Wilderness	3B
1.31	Backcountry Recreation, Year-round Nonmotorized	NA
1.32	Backcountry Recreation – Nonmotorized	3B and some 3A
1.33	Backcountry Recreation, Summer Nonmotorized with Winter Snowmobiling	3A
1.41	Core Areas	NA
1.5	National River System, Wild Rivers Designated and Eligible	NA
2.1	Special Interest Areas	10C
2.2	Research Natural Areas	10A
3.21	Limited Use	NA
3.24	Wildlife Corridors	NA
3.31	Backcountry Recreation, Year-round Motorized	2A and some 3A
3.32	Backcountry Recreation Nonmotorized with Winter Motorized	3a
3.33	Backcountry Recreation, Summer Motorized with Winter Nonmotorized	NA
3.4	National River System, Scenic Rivers Designated and Eligible	NA
3.5	Forested Flora or Fauna Habitats, Limited Snowmobiling	NA

New Management Area Prescriptions		Management Areas in the 1985 Plan
3.51	Bighorn Sheep	NA
3.54	Special Wildlife Areas (Sheep Mountain)	NA
3.56	Aspen Maintenance and Enhancement	4D
3.57	Late Successional Forests – Limited Management	NA
3.58	Crucial Deer and Elk Winter Range	NA
4.2	Scenery	NA
4.22	Scenic Areas, Vistas, or Travel Corridors	2B
4.3	Dispersed Recreation	NA
4.31	Dispersed Recreation – Low Use	2A
5.11	General Forest and Rangelands – Forest Vegetation Emphasis	4B
5.12	General Forest and Rangelands – Rangeland Vegetation Emphasis	6B
5.13	Forest Products	7C, 7D, 7E, 9B
5.15	Forest Products, Ecological Maintenance and Restoration Considering the Historic Range of Variability	NA
5.21	Water Yield	9B
5.4	Forested Flora and Fauna	4B
5.41	Deer and Elk Winter Range	5A and 5B
5.42	Bighorn Sheep Habitat	NA
7.1	Residential/Forest Interface	NA
8.21	Developed Recreation	1A
8.22	Ski-based Resorts, Existing and Potential	1B
8.3	Utility Corridors and Electronic Sites	1D
8.6	Administrative Sites	NA

*NA- Not available or not used in the 1985 Forest Plan.*

Prescriptions are grouped into categories with similar management characteristics. Categories range from little human-caused alteration (Category 1) to substantial human-caused alteration (Category 8). The following table lists the Management Areas that belong to each Category. The amount and location of each prescription varies by alternative. For a more complete discussion of the categories and management area prescriptions, see Chapter 2 of the Revised Plan.



Table 2-2. Management Area Prescriptions for each Category.

Category	Included Management Areas
Category 1	1.13, 1.2, 1.31, 1.32, 1.33, 1.41, 1.5
Category 2	2.1, 2.2
Category 3	3.24, 3.31, 3.32, 3.33, 3.4, 3.5, 3.51, 3.54, 3.56, 3.57, 3.58
Category 4	4.2, 4.22, 4.3, 4.31
Category 5	5.11, 5.12, 5.13, 5.15, 5.21, 5.4, 5.41, 5.42
Category 7	7.1
Category 8	8.21, 8.22, 8.3, 8.6

An additional grouping by resource emphasis was developed to provide a general reference for comparison of the alternatives. These groupings are described in the following table. It should be noted that all Management Areas are designed with multiple-use considerations. Biological conservation, recreation opportunities, renewable resource use, and wildlife habitat needs are provided for in all Management Areas. Forest-wide, Management Area, and Geographic Area Standards and Guidelines ensure that all resources are protected while still providing a variety of uses.

Table 2-3. Management Areas by Resource Emphasis Categories.

Biological Conservation	Special Designation	Recreation Use	Renewable Resource Use
1.41	1.13	1.31	5.11
3.21	1.2	1.33	5.12
3.24	1.5	3.31	5.13
3.5	2.1	3.32	5.15
3.51	2.2	3.33	5.21
3.54	3.4	4.2	5.4
3.56		4.22	8.6
3.57		4.3	
3.58		4.31	
5.41		7.1	
5.42		8.21	
		8.22	

## Desired Conditions Common to All Alternatives

Desired conditions unique to each alternative are described in the following section. Each alternative has unique characteristics, however many similarities exist. For example, all alternatives have a desired condition of providing biological diversity, maintaining viable wildlife populations, maintaining clean water, providing a variety of recreational opportunities, providing reasonable access to the forest, and maintaining a sustained flow of goods and services.

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## Alternative A

This alternative is an updated form of the no-action alternative and reflects current forest-wide direction. It meets the planning requirement (36CFR 219.12(f)(7) that a no-action alternative be considered.

‘No Action’ means that current management allocations, activities, and management direction found in the existing Forest Plan, as amended, would continue. This Alternative retains the goals and objectives of the 1985 Forest Plan. However, there have been amendments to the 1985 Plan, changes in law, regulation, Forest Service policy, modeling techniques, and other factors. This Alternative incorporates these changes and would continue current implementation of the Plan. It includes updated Management Area prescriptions identified by the Rocky Mountain Region of the Forest Service.

### Theme and Desired Conditions

As developed in 1985, this Alternative increased wildlife and recreation emphasis and decreased timber emphasis from management compared to pre-1985 levels.

Six Special Interest Areas totaling 4,304 acres provide a mix of biological, zoological and historical values, which may be enjoyed by forest visitors.

One Research Natural Area totaling 749 acres provides a relatively undisturbed area representing important natural ecosystems and environments as well as special or unique scientifically important characteristics.

The existing 78,850 acres of designated Wilderness provide opportunities for solitude and for primitive and unconfined recreational experiences.

### Relationship to Revision Topics

#### Biodiversity

- Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 20% of the Forest.
- On 45% of the Forest, late successional habitats and natural processes occur at higher levels.

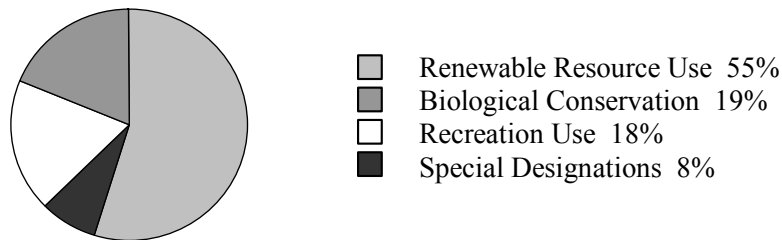
#### Timber

- Provides potential resource outputs of 28.9 Million Board Feet (MMBF/yr) ASQ. Timber management activities are evident on 55% of the Forest.
- Activities on 55% of the Forest work towards achieving a generally even distribution of age classes.
- Clearcutting is generally the optimum method for regenerating lodgepole pine.
- Created openings are generally 3-40 acres.

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- |                              |   |
|------------------------------|---|
| <b>Recreation</b>            | <ul style="list-style-type: none"><li>• 80% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li><li>• 79% of the forest is mapped in winter motorized ROS classes.</li></ul> |
| <b>Special Areas</b>         | <ul style="list-style-type: none"><li>• 1 Research Natural Area (less than 1% of the Forest).</li><li>• 6 Special Interest Areas (less than 1% of Forest).</li><li>• 0 Wild and Scenic Rivers.</li></ul>  |
| <b>Roadless Management</b>   | <ul style="list-style-type: none"><li>• 7% of Forest in Wilderness Areas</li><li>• 66% of inventoried roadless areas retain roadless character; 39% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li></ul>  |
| <b>Oil &amp; Gas Leasing</b> | <ul style="list-style-type: none"><li>• 0% of the Forest is available for oil and gas leasing</li></ul>   |

Figure 2-1. Alt A-Management Area Allocations by Resource Emphasis Category.



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## Alternative B

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities with a primary emphasis on scheduled timber harvests, which incorporate ecosystem management principles introduced after 1985. Management will work toward an even distribution of age classes, and will strive to produce a variety of goods and services that contribute to local economies.

This alternative recommends three Wild and Scenic rivers totaling 31 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment, North Platte and Roaring Fork of the Little Snake Rivers.

Eleven Special Interest Areas totaling 17,763 acres provide a mix of biological, zoological and historical values, which may be enjoyed by forest visitors.

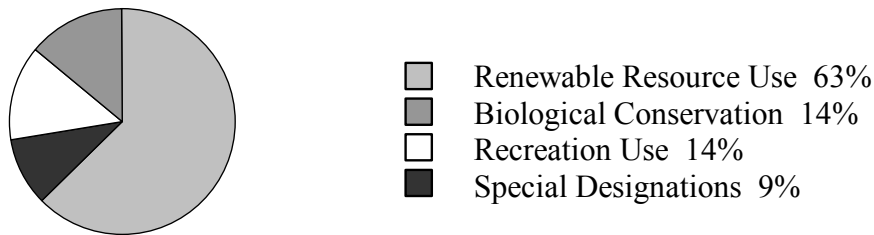
One already established Research Natural Area totaling 749 acres provides a relatively undisturbed area representing important natural ecosystems and environments as well as special or unique scientifically important characteristics.

The existing 78,850 acres of designated Wilderness provide opportunities for solitude and for primitive and unconfined recreational experiences.

### **Relationship to Revision Topics**

<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>• Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 28% of the Forest.</li> <li>• On 37% of the Forest, late successional habitats and natural processes occur at higher levels.</li> </ul>
<b>Timber</b>	<ul style="list-style-type: none"> <li>• Provides potential resource outputs of 27.2 MMBF/yr ASQ. Timber management activities are evident on 63% of the Forest.</li> <li>• Activities on 63% of the Forest work towards achieving a generally even distribution of age classes.</li> <li>• Clearcutting is generally the optimum method for regenerating lodgepole pine.</li> <li>• Created openings are generally 3-40 acres.</li> </ul>
<b>Recreation</b>	<ul style="list-style-type: none"> <li>• 83% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li> <li>• 79% of the forest is mapped in winter motorized ROS classes.</li> </ul>
<b>Special Areas</b>	<ul style="list-style-type: none"> <li>• No change. 1 Research Natural Area (less than 1% of Forest).</li> <li>• 11 Special Interest Areas (17,763 acres, 2% of Forest).</li> <li>• 3 Recommended Wild and Scenic Rivers (31 miles).</li> </ul>
<b>Roadless Management</b>	<ul style="list-style-type: none"> <li>• 7% of the Forest in Wilderness Areas. No recommended Wilderness Areas.</li> <li>• 68% of inventoried roadless areas retain roadless character; 39% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li> </ul>
<b>Oil &amp; Gas Leasing</b>	<ul style="list-style-type: none"> <li>• 25% of the Forest is available for oil and gas leasing with standard lease stipulations.</li> </ul>

Figure 2-2. Alt B-Management Area Allocations by Resource Emphasis Category.



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## Alternative C

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities, with a primary emphasis on enhancing recreation opportunities. Recreation management, together with vegetation management, will strive to produce a variety of goods and services that contribute to local economies.

There are two recommended Wild and Scenic Rivers totaling 26 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment and North Platte Rivers.

Eight Special Interest Areas totaling 1,776 acres provide a mix of biological, zoological and historical values, which may be enjoyed by forest visitors.

One already established Research Natural Area totaling 749 acres provides a relatively undisturbed area representing important natural ecosystems and environments as well as special or unique scientifically important characteristics.

The existing 78,850 acres of designated Wilderness provide opportunities for solitude and for primitive and unconfined recreational experiences.

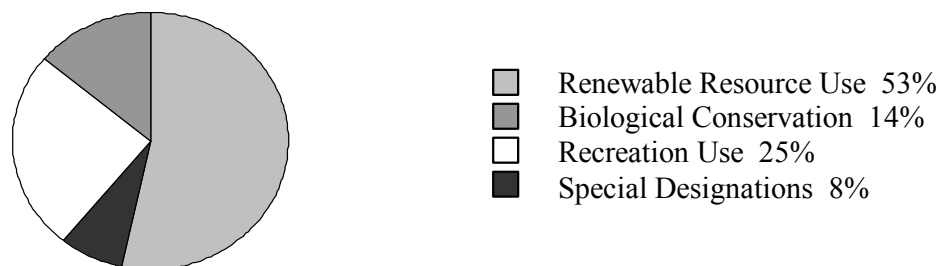
### Relationship to Revision Topics

#### Biodiversity

- Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 35% of the Forest.
- On 47% of the Forest, late successional habitats and natural process occur at higher levels.

<b>Timber</b>	<ul style="list-style-type: none"> <li>• Provides potential resource outputs of 25.8 MMBF/yr ASQ. Timber management activities are evident on 53% of the Forest.</li> <li>• Activities on 53% of the Forest work towards achieving a generally even distribution of age classes.</li> <li>• Clearcutting is generally the optimum method for regenerating lodgepole pine.</li> <li>• Created openings are generally 3-40 acres.</li> </ul>
<b>Recreation</b>	<ul style="list-style-type: none"> <li>• 78% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li> <li>• 78% of the forest is mapped in winter motorized ROS classes.</li> </ul>
<b>Special Areas</b>	<ul style="list-style-type: none"> <li>• 1 Research Natural Area (749 acres, less than 1% of Forest).</li> <li>• 8 Special Interest Areas (1,776 acres, less than 1% of Forest).</li> <li>• 2 Recommended Wild and Scenic Rivers (26 miles).</li> </ul>
<b>Roadless Management</b>	<ul style="list-style-type: none"> <li>• 7% of the Forest in Wilderness Areas. No recommended Wilderness Areas.</li> <li>• 82% of inventoried roadless areas retain roadless character; 64% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li> </ul>
<b>Oil &amp; Gas Leasing</b>	<ul style="list-style-type: none"> <li>• 25% of the Forest is available for oil and gas leasing with a variety of lease stipulations</li> </ul>

Figure 2-3. Alt C-Management Area Allocations by Resource Emphasis Category.



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## Alternative D DEIS

(This alternative is named **Alternative D** in the DEIS)

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities with a primary emphasis on enhancing non-motorized recreation opportunities while maintaining active forest vegetation management. Non-motorized uses play a larger role than in Alternative A.

There are two recommended Wild and Scenic Rivers totaling 28 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment and North Platte Rivers.

Fifteen Special Interest Areas totaling 29,756 acres provide a mix of biological, zoological and historical values, which may be enjoyed by forest visitors.

Two Research Natural Areas totaling 4,890 acres provide relatively undisturbed areas representing important natural ecosystems and environments as well as special or unique scientifically important characteristics.

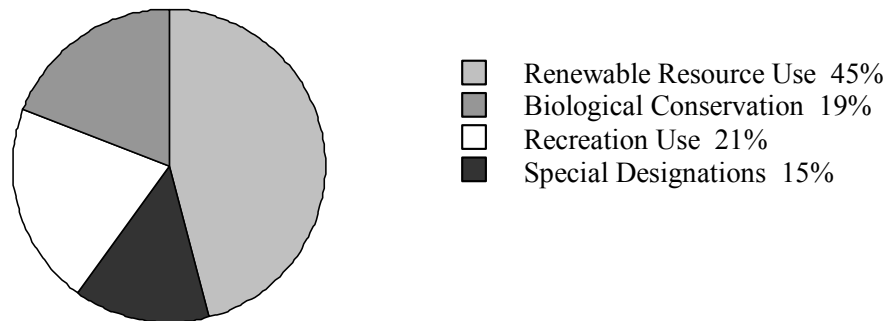
The existing 78,850 acres of designated Wilderness and an additional 60,859 acres of Recommended Wilderness areas provide opportunities for solitude and for primitive and unconfined recreational experiences.

### Relationship to Revision Topics

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|---------------------|---|
| <b>Biodiversity</b> | <ul style="list-style-type: none"><li>• Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 46% of the Forest.</li><li>• On 48% of the Forest, late successional habitats and natural process occur at higher levels. On 28% of the Forest, harvest activities are designed to emulate natural pattern, structure, and function.</li></ul>  |
| <b>Timber</b>       | <ul style="list-style-type: none"><li>• Provides potential resource outputs of 24.2 MMBF/yr ASQ. Timber management activities are evident on 45% of the Forest.</li><li>• Activities on 45% of the Forest work towards achieving a generally even distribution of age classes.</li><li>• Clearcutting is generally the optimum method for regenerating lodgepole pine.</li><li>• Created openings vary in size from less than 40 acres to hundreds of acres in size, or are staged to create larger patterns over time.</li></ul> |

<b>Recreation</b>	<ul style="list-style-type: none"> <li>• 71% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li> <li>• 67% of the forest is mapped in winter motorized ROS classes.</li> </ul>
<b>Special Areas</b>	<ul style="list-style-type: none"> <li>• 2 Research Natural Areas (4,890 acres).</li> <li>• 15 Special Interest Areas (29,756 acres, 2.7%)</li> <li>• 2 Recommended Wild and Scenic Rivers (28 miles).</li> </ul>
<b>Roadless Management</b>	<ul style="list-style-type: none"> <li>• 7% of the Forest in Wilderness Areas. 6% in recommended Wilderness Areas.</li> <li>• 97% of inventoried roadless areas retain roadless character; 73% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li> </ul>
<b>Oil &amp; Gas Leasing</b>	<ul style="list-style-type: none"> <li>• 25% of the Forest is available for oil and gas leasing with a variety of leasing stipulations.</li> </ul>

Figure 2-4. Alt D DEIS-Management Area Allocations by Resource Emphasis Category.



## Alternative D FEIS (Selected Alternative)

This Alternative represents changes to Alternative D as published in the DEIS based on public comment.

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities with a primary emphasis on enhancing non-motorized recreation opportunities while



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maintaining active forest vegetation management. Non-motorized uses play a larger role than in Alternative A.

There are two recommended Wild and Scenic Rivers totaling 28 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment and North Platte Rivers.

Thirteen Special Interest Areas totaling 18,708 acres provide a mix of biological, zoological, and historical values, which may be enjoyed by all forest visitors.

Five Research Natural Areas totaling 15,476 acres provide relatively undisturbed areas representing important natural ecosystems and environments, as well as special or unique scientifically important characteristics.

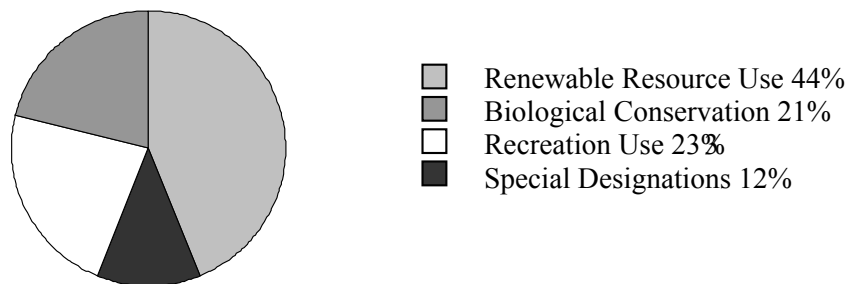
The existing 78,850 acres of designated Wilderness and an additional 27,973 acres of Recommended Wilderness areas provide opportunities for solitude and for primitive and unconfined recreational experiences.

### Relationship to Revision Topics

<b>Biodiversity</b>	<ul style="list-style-type: none"><li>• Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 45% of the Forest.</li><li>• On 56% of the Forest, late successional habitats and natural processes occur at higher levels. On 26% of the Forest, harvest activities are designed to emulate natural pattern, structure, and function.</li></ul>
<b>Timber</b>	<ul style="list-style-type: none"><li>• Provides potential resource outputs of 22.8 MMBF/yr ASQ. Timber management activities are evident on 44% of the Forest.</li><li>• Activities on 44% of the Forest work towards achieving a generally regulated distribution of age classes.</li><li>• Clearcutting is generally the optimum method for regenerating lodgepole pine.</li><li>• Created openings vary in size from less than 40 acres to 250 acres, or are staged to create larger patterns over time.</li></ul>
<b>Recreation</b>	<ul style="list-style-type: none"><li>• 74% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li><li>• 64% of the forest is mapped in winter motorized ROS classes.</li></ul>
<b>Special Areas</b>	<ul style="list-style-type: none"><li>• 6 Research Natural Areas (15,476 acres).</li><li>• 13 Special Interest Areas (18,708 acres, 2% of the forest)</li><li>• 2 Recommended Wild and Scenic Rivers (28 miles).</li></ul>

- |                              |   |
|------------------------------|---|
| <b>Roadless Management</b>   | <ul style="list-style-type: none"> <li>• 7% of the Forest in Existing Wilderness Areas. 3% in recommended Wilderness Areas.</li> <li>• 95% of inventoried roadless areas retain roadless character; 69% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li> </ul> |
| <b>Oil &amp; Gas Leasing</b> | <ul style="list-style-type: none"> <li>• 25% of the Forest is available for oil and gas leasing with a variety of leasing stipulations.</li> </ul>  |

Figure 2-5. Alt D FEIS-Management Area Allocations by Resource Emphasis Category.




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## Alternative E

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities with a primary emphasis on protecting existing roadless character and emulating natural landscape patch size in many areas where timber harvest is allowed. (Original Proposed Action Combined with Restoration Opportunities).

There are six recommended Wild and Scenic Rivers totaling 49 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment, North Platte, Roaring Fork, North Fork and West Branch of the Little Snake Rivers, and Rose Creek.

Fifteen Special Interest Areas totaling 24,143 acres provide a mix of biological, zoological, and historical values which may be enjoyed by all forest visitors.

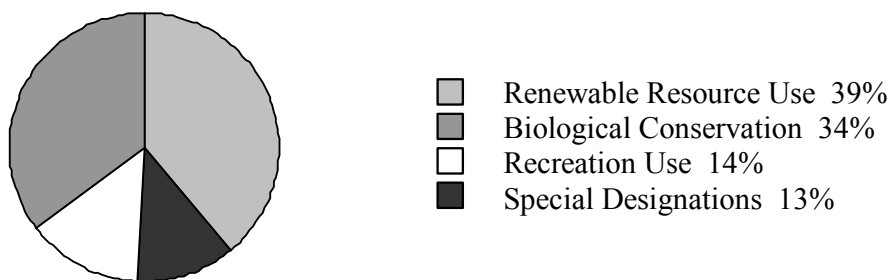
Seven Research Natural Areas totaling 38,529 acres provide relatively undisturbed areas representing important natural ecosystems and environments, as well as special or unique scientifically important characteristics.

The existing 78,850 acres of designated Wilderness and an additional 4,553 acres of Recommended Wilderness areas, provide opportunities for solitude and for primitive and unconfined recreational experiences.

### Relationship to Revision Topics

<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 46% of the Forest.</li> <li>On 61% of the Forest, late successional habitats and natural process occur at higher levels. Harvest activities are designed to emulate natural pattern, structure, and function on 24% of the Forest.</li> </ul>
<b>Timber</b>	<ul style="list-style-type: none"> <li>Provides potential resource outputs of 20.7 MMBF/yr ASQ. Timber management activities are evident on 39% of the Forest.</li> <li>Activities on 39% of the Forest work towards achieving a generally even distribution of age classes.</li> <li>Clearcutting is generally the optimum method for regenerating lodgepole pine.</li> <li>Created openings are generally greater than 40 acres.</li> </ul>
<b>Recreation</b>	<ul style="list-style-type: none"> <li>76% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li> <li>51% of the forest is mapped in winter motorized ROS classes.</li> </ul>
<b>Special Areas</b>	<ul style="list-style-type: none"> <li>7 Research Natural Areas (38,529 acres, 4% of Forest).</li> <li>11 Special Interest Areas (24,143 acres, 2%).</li> <li>6 Recommended Wild and Scenic Rivers (49 miles)</li> </ul>
<b>Roadless Management</b>	<ul style="list-style-type: none"> <li>7% of the Forest in Wilderness Areas. 2 recommended Wilderness Area expansions (total of 2% of the Forest).</li> <li>99% of inventoried roadless areas retain roadless character; 42% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li> </ul>
<b>Oil &amp; Gas Leasing</b>	<ul style="list-style-type: none"> <li>25% of the Forest is available for oil and gas leasing, with a variety of lease stipulations.</li> </ul>

Figure 2-6. Alt E- Management Area Allocations by Resource Emphasis Category.



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## Alternative F

### Theme and Desired Conditions

This Alternative provides a mix of multiple-use activities with a primary emphasis on providing non-game wildlife habitat through designation of mature forest core and linkage systems. It allows natural patterns and processes to occur at high levels.

There are eight recommended Wild and Scenic Rivers totaling 67.38 miles. These areas provide important resource related protection measures to preserve the free-flowing conditions of the Encampment, North Platte, Roaring Fork, North Fork and West Branch of the Little Snake Rivers, Big Sandstone, Solomon, and Rose Creeks.

Five Special Interest Areas totaling 7,891 acres provide a mix of biological, zoological and historical values, which may be enjoyed by all forest visitors.

Ten Research Natural Areas totaling 32,160 acres provide relatively undisturbed areas representing important natural ecosystems and environments, as well as special or unique scientifically important characteristics.

The existing 78,850 acres of designated Wilderness and an additional 271,357 acres of Recommended Wilderness areas provide opportunities for solitude and for primitive recreational experiences.

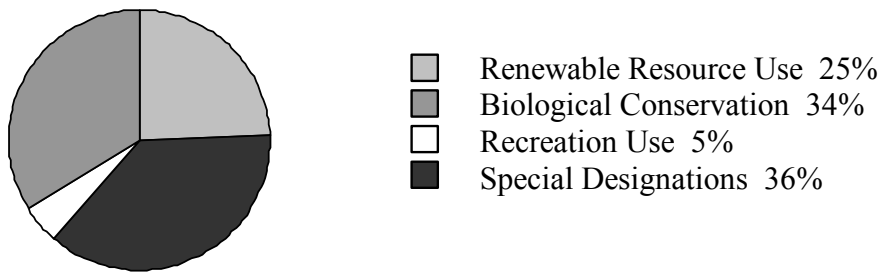
### Relationship to Revision Topics

- |                     |   |
|---------------------|---|
| <b>Biodiversity</b> | <ul style="list-style-type: none"> <li>• Forest vegetation patterns and successional condition will generally be influenced by natural disturbance processes such as fire, insects and diseases on 72% of the Forest.</li> <li>• Late successional habitats are emphasized on 75% of the Forest. On the remaining 25% of the Forest, age classes and distributions would be determined by other management objectives.</li> </ul> |
| <b>Timber</b>       | <ul style="list-style-type: none"> <li>• Provides potential resource outputs of 3 MMBF/yr ASQ. Timber management activities are evident on 25% of the Forest.</li> <li>• Prohibits clearcutting.</li> <li>• There are few, small created openings from timber harvest.</li> </ul>   |
| <b>Recreation</b>   | <ul style="list-style-type: none"> <li>• 60% of the forest is mapped in summer motorized ROS classes. Motorized use is limited to roads and trails Forest-wide.</li> <li>• 9% of the forest is mapped in winter motorized ROS classes. All winter motorized use is limited to roads and trails.</li> </ul>  |

## THE ALTERNATIVES

<b>Special Areas</b>	<ul style="list-style-type: none"><li>• 10 Research Natural Areas (32,160 acres, 3% of the Forest).</li><li>• 5 Special Interest Areas (7,892 acres, 1% of the Forest).</li><li>• 8 Recommended Wild and Scenic Rivers (67.38 miles).</li></ul>
<b>Roadless Management</b>	<ul style="list-style-type: none"><li>• 7% of the Forest in Wilderness Areas. 25% of the Forest in recommended Wilderness Areas.</li><li>• 99% of inventoried roadless areas retain roadless character; 98% of roadless areas are fully consistent with the Roadless Area Conservation Rule.</li></ul>
<b>Oil &amp; Gas Leasing</b>	<ul style="list-style-type: none"><li>• 25% of the Forest is available for oil and gas leasing with a variety of lease stipulations</li></ul>

Figure 2-7. Alt F-Management Area Allocations by Resource Emphasis Category.



## Alternatives Considered, but Eliminated from Detailed Study

Four alternatives were considered and eliminated from detailed study during the planning process. Following is a discussion of these alternatives and the reasons why they were eliminated.

### Non-Commodity Based Alternative

This alternative was originally presented as an entirely non-commodity based alternative by a variety of interested groups and citizens. As originally presented this alternative:

- ♦ Prohibits commercial timber harvesting except for posts, poles, firewood, and Christmas trees.

- ♦ Withdraws lands for mineral extraction from all Wilderness areas, recommended Wilderness areas, backcountry management areas, core and corridor areas, roadless areas, Research Natural Areas, Special Interest Areas, potential Research Natural Areas, potential Special Interest Areas, Wild and Scenic Rivers, eligible wild and scenic rivers, deer and elk winter range and special wildlife areas.
- ♦ Prohibits oil and gas leasing.
- ♦ Permits naturally caused fires to burn unless and until human life or property is directly threatened.
- ♦ Aggressively close non-essential roads.
- ♦ Prohibits salvage logging.
- ♦ Prohibits clearcutting
- ♦ Prohibits precommercial thinning.
- ♦ Restricts snowmobile use to existing roads or trails.
- ♦ Allows insects and disease outbreaks native to the forest to proceed until they reach epidemic proportions.
- ♦ Recommends all roadless areas for Wilderness designation.
- ♦ Designates all potential Research Natural Areas.
- ♦ Eliminates livestock grazing.

As presented, some components of this alternative were beyond the Forest Service authority to implement, such as requesting large-scale minerals withdrawals, and no livestock grazing. The Forest Service met with representatives of this group and identified several areas, which could be revised in an effort to make this alternative more closely meet the Forest Service Mission.

An alternative map of this alternative (Alternative G) was developed and presented during the March 2002 public open houses.

This alternative was presented to the Regional Forester in April 2002 together with all other alternatives. The Regional Forester believed that even the revised alternative did not adequately represent a reasonable alternative that met the Forest Service Multiple Use mandate. He also believed that for several key areas this alternative was substantially similar to Alternative F. Both alternatives ban clear-cutting, restrict snowmobile use to designated routes, limit oil and gas leasing, recommend most roadless areas for Wilderness, emphasize natural processes, and recommend most potential Research Natural Areas.

The Regional Forester identified that this alternative represented an opportunity to display important management impacts if implemented. He recommended utilizing this alternative as a minimum management benchmark alternative. This

approach would allow the Forest Service to analyze and display information for key issues related to this alternative.

This alternative was identified in the DEIS as Benchmark Alternative G. The effects of this alternative were analyzed in detail for the Major Revision Topics and other topics of livestock grazing, water yield, and communities. Because the benchmark analysis is documented in the DEIS, it is not repeated in the FEIS.

### **Maximum Timber Yield Alternative**

This alternative was proposed by representatives of timber industry following the March 2002 public open houses. This Alternative provides a mix of multiple-use activities with an emphasis on vegetation management to promote local economies, a balanced mix of age classes, and sustained flows of a variety of goods and services.

This alternative (Alternative H) was presented to the Regional Forester in April 2002 along with all other alternatives. The Regional Forester identified that this alternative did not adequately address the Purpose and Need for Revision. This alternative was believed to inadequately address the major Revision topics of Recreation and Biological Diversity. In addition, this alternative did not represent a substantial increase in the amount of forested lands, which contributed to ASQ over Alternative B.

The Regional Forester identified that this alternative represented an opportunity to display important management impacts if analyzed. He recommended utilizing this alternative as a maximum management benchmark alternative. This approach would allow the Forest Service to analyze and display information for key issues related to this alternative.

This alternative was identified in the DEIS as Benchmark Alternative H. The effects of this alternative were analyzed in detail for the Major Revision Topics and other topics of livestock grazing, water yield, and communities. Because the benchmark analysis is documented in the DEIS, it is not repeated in the FEIS.

### **Maximum Water Yield Alternative**

This alternative theme was proposed after the March 2002 public open houses. It was discussed with representatives from the timber industry and the State of Wyoming. The theme of the alternative is to maximize water yield through reductions in the density of forest canopy through timber harvest. The alternative offers an estimate of how much water might be produced if timber harvest were maximized on the Forest and therefore was incorporated into Alternative H, the Maximum Timber Yield alternative above. Alternative H

provides an estimate of the maximum timber harvest that could be sustained for all forested lands except for those lands legally withdrawn or not physically operable. Desires to maximize water yield from Forest management activities are largely driven by the desire to increase timber harvest and promote recovery of endangered species dependant on instream flows in the Platte River, “in a manner which avoids interference with private property rights.” (Coalition for Sustainable Resources vs. United States Forest Service, United States Court of Appeals Tenth Circuit No. 99-8060).

Many research studies based on relationships between precipitation, evapotranspiration, and groundwater storage in forested landscapes, at the small watershed scale, clearly demonstrate that water yields can be increased through vegetation manipulation or reductions in forest canopy density (See FEIS Appendix B). At the same time, however, experience has shown that operational programs that attempt to increase water yields at a larger scale have not been successful (See FEIS Appendix B). In the first round of forest planning, Forests had the option to emphasize water yield increases through a specific management area prescription. For Forest Plan Revisions, the Region has elected not to use a specific management area prescription for water yield emphasis in light of the scientific and operational constraints as well as experience in implementing current Forest Plans.

Water yield changes caused by timber harvest, fuels treatments, insect and disease and wildfire were modeled for all alternatives, including Alternative H, using the methods outlined in An Approach to Water Resources Evaluation of Non-Point Silvicultural Sources (WRENSS) (U.S. Environmental Protection Agency 1980). Detailed water yield analysis, results and discussion are presented in the Appendix B of the DEIS and FEIS. Alternatives which emphasize timber harvest tend to reduce the acreage affected by natural processes and alternatives which emphasize natural processes tend to have less timber harvest. While the process by which vegetation changes vary by alternative, the amount of vegetation altered by alternative is similar and results in similar water yields. Considering a variety of changes in vegetation (timber harvest, fuels reduction, wildfire and insect and disease), modeled water yield from this alternative was not found to be significantly different than the existing range of water yield from other alternatives and therefore this alternative

## **Local Governments Coalition Alternative**

After publication of the DEIS, the Medicine Bow Forest Plan Coalition submitted comments on the DEIS and included a proposed alternative for consideration. This alternative focused on personal and structural safety of the surrounding communities of the MBNF and restoration of the wildland-urban interface fire-dependent vegetation communities. Critical to this alternative was the proactive management approach of preempting large destructive wildfires.



The Forest Service reviewed this alternative in depth and concluded that while it contained a unique theme, management proposals for specific areas, and numerous recommendations for Forest-wide guidance, that it was not significantly different from components of other alternatives already developed.

As a result of this conclusion, this proposed alternative was incorporated into the content analysis process as comments on the DEIS and not added to the range of alternatives as a totally new alternative. In cooperation with the Local Governments Coalition, key elements of their proposed alternative and accompanying comments were incorporated into the selected Alternative D FEIS and Revised Forest Plan.

### Other Alternatives

During the DEIS comment period, some comments identified the need to have a greater variety or range of alternative outputs.

One of the suggestions was to include more combinations of proposed Wilderness areas. Because the Forest Service considered 31 inventoried roadless areas for inclusion in the Wilderness system as well as public proposed in Alternative F, it is not practical to have alternatives representing numerous permutations of recommended Wilderness areas, e.g. (an alternative with three, another alternative with six, etc...). The Forest Service has the option of selecting any combination of recommended Wilderness Areas analyzed in the DEIS. This allows the Regional Forester decision making flexibility without having to overburden the analysis with minor variations in alternatives.

Other comments suggested a similar situation regarding the Allowable Sale Quantity (ASQ) for the alternatives. Unlike Management Area allocations, ASQ is a modeled output designed to represent the sustainable level of timber which can be produced from the forest. While the modeled outputs resulted in a 17 mmbf gap in ASQ between Alternatives F and E at the desired condition budget level, the experienced budget level considered ASQs between 7 mmbf and 12 mmbf. Suitable timberland acres considered provided a reasonable range of alternatives from A-F. In addition, as with the Wilderness example described above, the Forest Service has the option of selecting any sustainable ASQ analyzed in the DEIS, which avoids the need to have an excessive amount of alternatives.

### Comparison of Alternatives

This section is designed to help the reader compare the land allocations, the activities and outputs, and the environmental effects of the six alternatives considered in detail. This discussion focuses on factors that display measurable differences among alternatives, summarizing more detailed information that is found in Chapter 3 of this document. Revised Plan-Appendix H – Supplemental

Tables display tabular comparisons of land allocations for each alternative and activities and outputs for each alternative.

## Major Revision Topics

### *Biological Diversity*

#### **Introduction**

Biological diversity was analyzed in a two-stage process. This approach utilizes a broad ecosystem analysis as the first stage and a single-species analysis as the second.

The Ecosystem Analysis focuses on understanding dominant disturbance processes and evaluating how proposed management interacts with current conditions in light of those processes. Ecosystem components of **composition** (cover type), **structure** (habitat structure stages and landscape arrangement of patches) and **function** (growth and disturbance processes) provide a basis for describing ecosystem diversity.

The Single-Species Analysis is conducted on those species where there is a known viability concern in the planning area. The Single Species Analysis is an analysis of particular species and their habitats. These species have been identified as having a need for a more rigorous examination of threats to the species and how management activities and uses impact those threats.

#### **Ecosystem Analysis**

Although the vegetation will change with time, the spatial extent of cover types will remain relatively stable. Under all alternatives, the composition of the MBNF will continue to be influenced predominantly by the climatic and biological processes that shaped it. These processes provide the array of compositional elements (e.g. vegetation associations, soil types, rare species) that are available to respond to disturbances. The composition of the MBNF will vary by the type and extent of disturbances (natural or human land uses) implemented under each alternative. Alternatives F, D DEIS and D FEIS, have a greater predicted occurrence of natural processes.

Alternative A has the least stand replacement disturbance predicted from both natural disturbance and management and would support the most extensive area of older forest over the long-term. Alternative F has the next least amount of stand replacement disturbance. Alternatives C, B, E, D DEIS, and D FEIS follow with an increasing amount of stand disturbance and fewer acres of older forest. These predictions are based on critical assumptions regarding the interactions of natural disturbance and management. Assumptions are outlined in this document and described more completely in Appendix B.

## THE ALTERNATIVES

The occurrence of different habitat structure stages is not evenly distributed across management areas. The even distribution of age classes desired on suitable lands for sustainable renewable resource management is different than what currently exists on these suitable lands. It is also different than that expected under native disturbance regimes (variation in age class abundance) that would be created by natural process. This desired distribution of age classes, if, and when it is achieved, would be directly reflected in the distribution of habitat structure stages. Furthermore, maintaining a uniform distribution of age classes (a feature not expected under a natural disturbance regime) will require significant management effort over the long-term in the face of pressure from broad-scale natural disturbance agents.

The alternatives with the greatest allocation of land to renewable resources uses in order Alternatives B, A, C, D DEIS and D FEIS, E, and F. If “extreme” conditions were to occur, or a series of years with “ordinary” conditions but relative high fire occurrence, along with planned harvesting, Habitat Structural Stages 3C, 4A, 4B, and 4Cc could become rare on landscape with respect to HRV. Alternatives E and F have the largest amount of planned wildlife habitat restoration. Alternatives D DEIS and D FEIS have the greatest amount within MA 5.15, which emphasizes restoration activities.

Historically, fire suppression and grazing have altered the non-forested systems on the Forest. While all alternatives restore fire as the primary agent-of-change, Alternatives D DEIS, D FEIS, and E do so to the greatest extent.

While Alternatives A and F have different standards for old growth, all alternatives will meet the minimum standards for old growth retention and management set for the alternative. Alternative F is likely to exceed these minimums.

Alteration of patch sizes will vary by alternative and occur primarily as a result of timber harvesting, road construction, and natural disturbances such as those from wildfire, insects and disease. Patch sizes will be reduced through timber harvest and road construction most significantly (ordered from high to lower) in Alternatives A, B, C, D FEIS, D DEIS, E and F. Natural disturbance processes will influence patch size most in Alternative F, followed by E, D DEIS, D FEIS, C, B and A.

Changes to levels of snags and coarse woody debris on the forest will vary by alternative and occur primarily as a result of timber harvesting, and natural disturbances such as those from wildfire, insects and disease. Reduced levels as a result of harvesting in order from highest to lowest will be Alternatives A, B, C, D DEIS, D FEIS, E and F. Changes based on natural disturbance processes in order from highest to lowest will be Alternatives F, D DEIS, D FEIS, E, C, B, and A.

Alternatives F and E would work to actively alter native ecosystem processes the least while Alternatives D DEIS, and D FEIS (in order presented) would have an increasing effect on the extent and frequency of natural disturbance agents. Alternatives A, B, and C would have the greatest potential adverse effects based on the percentage of areas where natural processes could be interrupted.

Occurrence of fire, insect, and disease on the forest will depend on the amount of pre-suppression measures taken and on climatic factors. Potential occurrence, by alternative, in order from most to least are; Alternatives F, E, D DEIS, D FEIS, C, A and B.

### Single Species

The biological assessment for threatened, endangered species concluded that effects range from no effect to not likely to adversely affect all species and critical habitat except for Canada lynx in Alternative A and for Preble's Meadow Jumping Mouse and its designated critical habitat. Alternative A does not include conservation measures to protect lynx and every alternative proposes prescribed fire that may occur in suitable habitat for Prebles. Adverse affects to Preble's from prescribed burning are short term, but benefit the species in the long term. The biological evaluation for sensitive species concluded that Alternative A could result in likely to result in loss of viability in the Planning Area for American marten. All other alternatives may adversely impact individuals of some sensitive species, but not result in loss of viability in the planning area that would trend toward federal listing.

### Management Indicator Species

The Forest Service Manual defines Management Indicator Species (MIS) as "...plant and animal species, communities, or special habitats selected for emphasis in planning, and which are monitored during forest plan implementation in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs which they may represent" (United States Department of Agriculture [USDA]-Forest Service 1991). The National Forest Management Act (NFMA) requires that MIS be selected as part of the forest plan to estimate the effects of planning alternatives on fish and wildlife populations.

Table 2-4. Management Indicator Species (MIS).

Species
Snowshoe hare
American marten
Northern goshawk
Three-toed woodpecker
Golden-crowned kinglet
Wilson's warbler
Lincoln's sparrow
Common trout species

### Timber Suitability and Management

Identification of lands suitable for timber production is one of the key decisions made in a forest plan. The process to determine timber suitability is found in 36 CFR 219.14, and FSH 2409.13. It is described in detail in Appendix B of the FEIS.

Table 2-5. Timber suitability.

	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Tentatively Suitable and Common to all Alternatives	663,557	663,557	663,557	663,557	662,756	663,557	663,557
Suitable Acres	474,828	407,803	370,662	330,561	320,754	290,157	172,455

Source: GIS Data layers.

Alternative A has the highest level of suitable acres followed by Alternatives B through F respectively.

The Allowable Sale Quantity (ASQ) for each alternative was formulated by considering the tentatively suitable timberland base, multiple-use objectives, and the management requirements in the NFMA regulations. The ASQ is considered a ceiling or upper limit on harvest in each decade. A discussion of the analysis process and use of model constraints is found in Appendix B of the FEIS.

The following table displays the amount of ASQ for each alternative. The ASQ was remodeled for all alternatives between Draft and Final. ASQ is for the full implementation level. Alternative A, B and C provide the highest levels of ASQ.

Table 2-6. Allowable sale quantity (ASQ) by alternative.

	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
ASQ MMBF/yr	28.9	27.2	25.8	24.2	22.8	20.7	3

In Alternatives B-F, only management area prescriptions 5.11, 5.13, 5.4 and 5.15 contribute towards the ASQ. Timber harvest may be allowed in other management area prescriptions, but only to meet other resource objectives compatible with the management area in question. Harvest in these areas would not contribute towards the ASQ but would contribute towards the total timber sale program level. Alternative A has a variety of additional management area prescriptions, which contribute to ASQ. These additional prescriptions are used only because they reflect current management under Alternative A.

As a ceiling on timber sold from suitable timber lands, ASQ has not been a reliable predictor of actual harvest levels. Annual budgets, project appeals,

litigation, market conditions, natural disasters, and changes in national policies affecting resource management all have combined historically to reduce timber harvest on the Medicine Bow National Forest. Some of these factors tend to reduce harvest levels, while others increase the levels. ASQ volumes include only sawtimber harvested from suitable timber lands.

Timber products other than live sawtimber and salvage of dead timber can be harvested from both suitable and unsuitable timber lands. Fuel treatment in the wildland urban interface is a good example of an activity yielding timber products that generally do not come from suited timber lands. While these products are not counted toward allowable sale quantity, they nonetheless count toward total harvest volumes. The sum of volume from these products, live sawtimber, and firewood for personal use is called Total Sale Program Quantity (TSPQ). For a detailed discussion of TSPQ, see Appendix B.

Table 2-7. Average annual total sale program quantity for first decade (MMBF).

<b>Budget Level</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D DEIS</b>	<b>D FEIS</b>	<b>E</b>	<b>F</b>
Experienced Budget Level	15.3	17.6	15.3	15.1	15.1	12.0	4.8
Desired Budget Level	37.2	35.2	33.5	31.6	30.0	27.4	6.1

Estimating sawtimber volume harvested and processed locally during the first decade of the plan must consider a variety of factors – some that influence timber supply and others that influence mill capacities. While national forest timber has been a relatively low share of total timber harvest in the market area, the balance of timber supplies has been provided by state, private, and other ownerships. It is generally recognized that recent volumes from state and private ownerships are not sustainable in the long run. Estimates of all supply sources are captured in the next table.

Table 2-8. Total timbershed sawtimber supply in 2010 by source scenario (MMBF).

<b>Alternative</b>	<b>Anticipated Harvest</b>		<b>Anticipated Harvest</b>		<b>Desired Budget Level Harvest</b>	
	<b>Routt NF</b>	<b>State/Private/ Other</b>	<b>Medicine Bow NF</b>	<b>All Sources</b>	<b>Medicine Bow NF</b>	<b>All Sources</b>
A	18	10	10.7	38.7	29.0	57.0
B	18	10	12.6	40.6	27.3	55.3
C	18	10	10.7	38.7	25.9	53.9
D DEIS	18	10	10.5	38.5	24.3	52.3
D FEIS	18	10	10.5	38.5	22.9	50.9
E	18	10	7.9	35.9	20.8	48.8
F	18	10	1.9	29.9	3.0	31.0

Timber markets have changed dramatically in recent years, and especially since the Forest Plan was first approved. Changes in the industry now come more quickly than in years past. There are three large sawmills around the forest, two of which recently changed ownership or management. Given the complexity and volatility of today's timber industry, it is difficult to forecast future production at any of these facilities. Several scenarios were developed to aid in estimating industry consequences of the alternatives.

Anticipated sawtimber volumes from the Medicine Bow NF, if experienced budget levels continue throughout the first decade, may add sufficient supplies to satisfy modest industry processing capacity – either 1-shift operations at most mills, including the one at Saratoga, or greater than 1-shift operations at most mills excluding the mill at Saratoga. Because total timber shed volume would fall short of fully utilizing all local industry one-shift capacity, not all mills may be equally viable. Since Alternatives A, C, D DEIS, and D FEIS fall short by 9 MMBF of a combined 1-shift production at all mills, it is uncertain whether all mills would continue operation, some choosing to operate at less than 1-shift, or whether one mill would close. Should budgets and other factors not limit sawtimber volume, then slightly more than half of the maximum industry capacity would be utilized.

### ***Recreation Opportunities***

Recreation management means providing a range of recreation opportunities to meet the needs of users and local communities in balance with protection of forest resources. All forest management alternatives provide for continued recreation management, but to varying degrees.

Use is expected to increase at least as fast as the population, by ~51% by 2050. Most of the increase will occur in pleasure driving, viewing scenery, and fishing, all traditional forest activities (Bowker, D.B.K. English et al. 1999). This increase will occur, regardless of the Alternative chosen.

Each management area on the Forest has an associated Recreation Opportunity Spectrum (ROS) class. The following figure illustrates current and alternative mixes of ROS classes. Alternative F would emphasize the primitive end of the spectrum, while Alternative B emphasizes the roaded and developed end of the spectrum.

Table 2-9. Summer ROS class by alternative.

ROS Class	A	B	C	D DEIS	D FEIS	E	F
<b>SPNM</b>	213,928	181,932	239,463	316,919	286,266	265,054	433,331
<i>Change from Alternative A</i>		-31,996	25,535	102,991	72,338	51,126	219,403
<b>SPM</b>	264,188	210,322	216,268	199,855	223,056	254,595	302,892
<i>Change from Alternative A</i>		-53,866	-47,920	-64,333	-41,132	-9,593	38,704
<b>RN</b>	277,661	272,074	250,461	244,707	257,205	249,466	171,865
<i>Change from Alternative A</i>		-5,587	-27,200	-32,954	-20,456	-28,195	-105,796
<b>RM</b>	292,491	371,934	331,590	278,166	274,388	269,853	134,397
<i>Change from Alternative A</i>		79,443	39,099	-14,325	-18,103	-22,638	-158,094
<b>RL</b>	36,445	48,351	46,832	44,967	43,475	45,647	42,129
<i>Change from Alternative A</i>		11,906	10,387	8,522	7,030	9,202	5,684

The following table shows the mix of semi-primitive motorized and non-motorized ROS classes in the winter, as derived from the GIS mapping process.

Table 2-10. Winter ROS class mixes (SPNM and SPM) - acres by alternative and changes from Alternative A.

Winter Recreation Opportunity Spectrum Analysis							
ROS Class	A	B	C	D DEIS	D FEIS	E	F
	Acres						
<b>SPNM</b>	185,139	180,125	192,909	317,239	342,455	483,411	940,119
<i>Change from Alternative A</i>	NA	-5,014	7,770	132,100	157,316	298,272	754,980
<b>SPM</b>	854,159	859,173	846,389	722,058	696,880	555,886	99,179
<i>Change from Alternative A</i>	NA	5,014	-7,770	-132,100	-157,279	-298,273	-754,980
<b>RN</b>	4,454	4,454	4,454	4,454	4,201	4,454	4,454
<i>Change from Alternative A</i>	NA	0	0	0	-253	0	0
<b>Rural</b>	22,193	22,193	22,193	22,193	22,197	22,193	22,193
<i>Change from Alternative A</i>	NA	0	0	0	4	0	0
<b>Non Use</b>	18,669	18,669	18,669	18,669	18,656	18,669	18,669
<i>Change from Alternative A</i>	NA	0	0	0	-13	0	0



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The winter ROS assumes low densities of users in most areas outside roads, trailheads (staging areas), and developed ski areas. These higher use areas are classified as Roaded Natural (RN) and Rural (RL). Roaded Modified (RM) remains relatively the same for Alts A-E and decreases in Alternative F.

Alternative B would provide fewer acres for non-motorized recreation than currently provided, and Alternative C would be no change from current, as a result of implementation. The remaining Alternatives would increase the Semi-primitive Nonmotorized (SPNM) and decrease Semi-primitive Motorized (SPM), progressively from Alternatives C through F.

The ROS class does not necessarily mean opportunities are already available. Opportunities need to be provided, including trail development, and other user conveniences. Winter trails and other facilities are dependent on funding. The State Trails program provides grant funds that would be available to the Forest in any Alternative.

### **Roadless Area Allocations and Wilderness Recommendations**

To disclose how alternatives vary in consistency with the prohibitions of the Roadless Area Conservation Rule (RACR) that has been set aside by the Court, and display retention of roadless characteristics, Management Areas were grouped into three categories:

- ♦ Category 1 - Permit actions that will not retain roadless characteristics,
- ♦ Category 2 - Permit actions that will retain roadless characteristics and are consistent with the prohibitions of the RACR that has been set aside by the Court, and
- ♦ Category 3 - Permit actions that retain roadless characteristics but are inconsistent with prohibitions of the RACR that has been set aside by the Court.

The following table displays how each alternative allocates the IRAs to Categories 1, 2 and 3.

Table 2-11. Inventoried roadless areas: acres allocated to Categories 1, 2 and 3 for each alternative.

Category	Acres/ Percent	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F*
1	Acres Percent	110,206 34	101,048 32	56,599 18	10,696 3	17,075 5	4,113 1	5,076 2
2	Acres Percent	8,709 3	126,078 39	205,451 64	232,397 73	220,370 69	134,910 42	312,576 98

Category	Acres/ Percent	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F*
3	Acres Percent	200,818 63	92,607 29	57,683 18	76,640 24	82,280 26	180,710 57	2,081 <1

Source: GIS (ARC/Info), roadless inventory and allocation layers

\* Alt F contains public-proposed recommended wilderness acres that are not part of the FS Inventoried Roadless Areas. Under Alt F, Those additional 17,000 acres on the four subunits of the Forest are Consistent with the prohibitions of the RACR or fall into Category 2.

The Forest Service evaluated each of the 31 Inventoried Roadless Areas (IRAs) to determine its suitability as potential wilderness. Alternatives A, B, and C, have no acres or areas assigned from IRAs to MA 1.2, Recommended Wilderness. Five individual IRAs showing clear evidence of current and future public need for wilderness were allocated to Management Area 1.2 in Alternative D DEIS. Those areas are Little Snake, Huston Park Addition, Encampment River Addition, Rock Creek and Laramie Peak IRAs.

Alternative D DEIS recommends 60,836 acres from five IRAs for wilderness designation. Alternative D FEIS recommends 27,963 acres from four IRAs. Alternative E recommends 4,553 acres from two IRAs. Alternative F recommends 254,497 acres from 30 agency IRAs and an additional 16,860 acres from NFS lands not included in the agency inventory of roadless areas. Those additional acres not included in the agency inventory occur on the following mountains: Sierra Madre (7,006 acres), Medicine Bow Mountains (2,373), Sherman Mountains or Pole Mountain (7,026), and Laramie Peak Unit (579 acres).

## Special Areas

### Research Natural Areas

A principle purpose of the Research Natural Area System is to provide a representative range of relatively undisturbed sites for research, monitoring, biodiversity protection and as reference areas for management activities throughout the National Forest System lands. A variety of uses are allowed in RNAs as long as the activity or uses do not become a threat to the values for which the RNA was proposed and as long as RNA management plan direction is followed.

Every alternative retains the Snowy Range RNA. Alternatives A, B and C propose no new RNA's. Alternative D DEIS would designate Standard Park RNA (3,480 acres), which is within the Huston Park Wilderness Area. Alternative D FEIS would designate five new RNAs on the Forest for a total of 15,476 acres with 10,043 acres in Wilderness Areas. Alternative E would designate six new RNAs for a total of 38,575 acres with 11,856 acres in

## THE ALTERNATIVES

Wilderness Areas. Alternative F would designate a total of nine new areas for a total of 33,825 acres.

The following table displays the individual pRNAs and acres included in each alternative:

Table 2-12. Research Natural Areas (number of and acres) by Alternative.

Research Natural Area	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Number	1	1	1	2	6	7	10
Acres	749	749	749	4,229	15,476	38,575	33,825

Source: GIS

### Special Interest Areas

Designating SIAs will preserve and protect areas of local interest. SIAs are managed to protect their unique values and to develop areas for public education and to provide interpretative opportunities, where appropriate. Many uses are allowed in SIAs, including recreation, livestock grazing, mineral leasing, and road construction, but only if such uses do not degrade the characteristics for which these areas are designated.

The following table shows potential SIAs by alternatives and approximate acreages:

Table 2-13. Special Interest Areas (number of and acres) by Alternative.

SIAs	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Number	6	11	8	15	13	15	5
Acres	4,304	17,725	1,776	29,763	18,708	24,135	7,892

### Wild and Scenic Rivers

Alternative F provides the greatest combined miles of wild and scenic designations (67.38 miles), followed by Alternative E at 49.38 combined miles. Alternative B has the next most with 31.41 combined miles, and Alternative D DEIS and D FEIS with 27.68 combined miles. Alternative C has 26.38 miles and Alternative A has 0.0 combined miles.

Table 2-14. Recommended Wild and Scenic Rivers by Alternative (miles).

	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Total Wild Miles	0.0	27.20	23.47	23.47	23.47	27.20	41.20
Total Scenic Miles	0.0	4.21	2.91	4.21	4.21	22.18	26.18
Total Combined Miles	0.0	31.41	26.38	27.68	27.68	49.38	67.38

### Oil and Gas Leasing

Approximately 25% of the MBNF has low or moderate potential for oil and gas development. Approximately 75% has no potential. Only those areas with oil and gas potential were analyzed since these areas are considered the maximum potential area affected. The following table displays the total amount available for leasing and the associated leasing stipulations by alternative.

Table 2-15. Oil and Gas Resource Potential (acres) by Alternative.

	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Total Federal mineral estate	272,524	272,524	272,524	272,524	272,524	272,524	272,524
Acres not available for leasing	272,524	7,226	7,226	7,226	7,226	7,226	7,226
Acres available for leasing	0	265,298	265,298	265,298	265,298	265,298	265,298
<b>Acres open for leasing with stipulations</b>							
No Surface Occupancy (NSO)	NA	0	97,411	105,200	98,943	74,742	193,745
Timing Limitation (TL)	NA	0	896	529	4,276	326	1,976
Controlled Surface Use (CSU) and Timing Limitation (TL)	NA	0	20,505	19,253	18,173	54,623	17,537
Controlled Surface Use (CSU)	NA	0	67,742	78,162	80,723	81,214	19,414
Standard Lease Terms (SLT)	NA	265,298	78,744	62,153	63,182	54,392	32,625
<b>Total</b>	NA	265,298	265,298	265,298	265,298	265,298	265,298

Projected activity levels for conventional oil and gas (2 wells drilled, none expected to be productive) will be affected by the number of acres not available for leasing or available and carrying an NSO stipulation.

Table 2-16. Effects of Alternatives on Projected Wells Based on the Reasonably Foreseeable Development Scenario.

	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
Wells Eliminated, Conventional	2	0	0	1	1	0	2
<b>Total</b>	0	2	2	1	1	2	0

Alternative A and F would have the most wells eliminated by the proposed Plan and stipulations, followed by Alternatives D DEIS and D FEIS. Alternatives B, C, and E would have the fewest wells affected or eliminated by the stipulations.

## Other Revision Topics

### **Soils**

The potential impacts to the soil resource result from the level of management activity and the effect of the activity on soil productivity. The alternatives are ranked based on potential risk to soils. From greatest to least risk are Alternatives B, C, A, D FEIS, D DEIS, E, and F. The relative ranking of the alternatives is based on the Summary of Acres Disturbed and Erosional Index by Alternatives.

### **Air**

All areas of the Medicine Bow National Forest including all the wilderness areas on the Forest currently meet air quality standards and show no degradation to visibility or other air-quality-related values. Compliance with local, state, and federal air quality regulations will ensure that future forest management activities under any of the alternatives will continue to protect air resources on the forest and not contribute to air quality degradation off the forest. Planned activities will be mitigated to prevent cumulative effects from having unacceptable impacts to air resources. The State of Wyoming has the regulatory authority for controlling emissions throughout the State of Wyoming, including those emissions with the potential to adversely impact resources on the Forest.

### **Aquatics**

Potential effects to water and aquatic habitats, including fisheries are the result of past, current, and future disturbances, both natural and human caused. Large-scale natural disturbances can have severe impacts on water and aquatic resources. Based on allocations to areas which restore natural processes, potential impacts of the alternatives, most to least, are F, E, D DEIS, D FEIS, C, B, A. Potential impacts from timber harvesting can also have adverse effects on water and aquatic resources. Based on allocations to management areas which emphasize timber management, potential impacts of the alternatives, most to least, are A, B, C, D DEIS, D FEIS, E, and F.

Using soil and water improvements to minimize connected disturbed areas can reduce the potential for adverse watershed effects. The use of Best Management Practices (BMPs) and implementation of the direction in the Watershed Conservation Practices handbook will reduce potential for adverse effects to acceptable levels for all alternatives.

### Locatable Minerals

Locatable minerals are affected by an area's potential for discovery of the mineral and by those management area prescriptions which withdraw areas from entry. There have been exploratory core drilling operations in the past, but there has been no further interest shown. Market prices, commodity supply and demand, and technological advances will influence future interest in exploration, development and production.

The following table displays proposed withdrawals by alternative based on Management Area allocations. Existing withdrawals, many dating back to the 1930s, are not based on management area allocations. Overlap exists in many areas proposed for withdrawal in the alternatives. The table shows the relative change between alternatives based on management areas only.

Table 2-17. Locatable mineral withdrawals by alternative (acres based on management area allocations and GIS acres).

Alternative	A	B	C	D DEIS	D FEIS	E	F
Acres withdrawn from minerals exploration	91,504	162,524	214,365	319,422	272,880	240,366	448,534
Acres available for minerals exploration	993,110	922,090	870,249	765,192	811,734	844,278	636,080

### Vegetation

The largest factors influencing vegetation on the Forest will be timber harvesting, fuel reduction treatments, livestock grazing, and natural disturbance processes. The term "natural disturbance" used here includes, fire, insects, and disease, blowdown, ice storms, and drought stress. The levels of activities associated with each of these factors vary with each alternative.

### Rangeland Vegetation

Alternative A would continue existing trends of moving rangeland vegetation towards later seral stages and with steady or improving trends. Alternative C would also maintain rangeland vegetative conditions very similar to the present. Alternative B will move about 5% of the vegetation from late to mid seral condition as a result of a 60% increase in the use of prescribed fire. Alternatives D DEIS and D FEIS, E, and F will increase the amount of late succession

vegetation by 10%, 15%, and 24% respectively. Much of that will be achieved through reductions in the acres of timber management.

### Forest Vegetation

See Biological Diversity section under Major Revision Topics.

### Livestock Grazing

Alternatives A, B, C, D DEIS, D FEIS, and E maintain existing conditions and livestock use levels.

Alternative F reduces livestock use by 25%. An additional seven allotments could become vacant. Average forage utilization levels across the landscape (uplands as well as riparian zones) will decrease by about 10% from current levels. Vegetation is managed to maintain a total of 70% of the vegetation in mid to late seral condition.

### Insects and Disease

Natural disturbance events and succession will continue to operate regardless of the alternative; however the amount of land upon which natural processes operate as the primary disturbance agents varies by alternative. Where natural processes are the predominant disturbance process, the control and suppression of insect and diseases is a less frequent occurrence. In the short term, this will result in an increase in insects and diseases. In the longer term, as natural processes operate with little restriction, the occurrence and magnitude of insect and disease activity will fluctuate over time and space. Since insect risk is medium high or high on greater than 22,687 acres across the forest (from 172,129 inventoried acres), and since insect damage is associated with population levels, forest structure and drought cycles, it is possible that many of these acres at high risk of insect damage would be attacked within the next 50 years. The potential exists for large areas of the forest to be subject to large-scale events when high-risk conditions occur.

The following table displays the allocation to management areas where natural processes are predominant:

Table 2-18. Allocation to management areas where natural process are predominant by alternative

	Alternatives						
	A	B	C	D DEIS	D FEIS	E	F
Natural Processes (% of MBNF)	20%	28%	37%	48%	45%	48%	74%

MA's 1.13, 1.2, 1.31, 1.33, 1.41, 1.5, 2.1, 2.2, 3.21, 3.24, 3.31, 3.32, 3.33, 3.4, 3.5, 3.51, 3.54, 3.56, 3.57 and 3.58.

Based upon existing risk levels, major insect and disease outbreaks are not expected to occur during the next 10-year plan period. However, climatic conditions, which are impossible to predict, could result in significantly higher levels than those currently occurring on the forest.

### **Fire and Fuels Management**

Fire and fuels management is a key component of all alternatives. The type of control measures utilized where wildland fires occurs is based on Appropriate Management Responses (AMR) assigned to all Management Areas.

Three wildland fire control strategies are used: direct control, perimeter control, prescription control. The control strategy to be used varies with the management prescription allocation displayed in the following table.

Table 2-19. Appropriate management response (acres/percent) by alternative.

Alt.	Prescription or Perimeter		Perimeter or Direct		Prescription, Perimeter or Direct		Direct	
	Acres	%	Acres	%	Acres	%	Acres	%
A	132,473	12	777,609	72	167,267	15	7,265	1
B	191,812	18	628,453	58	256,711	24	7,638	1
C	286,412	26	447,443	41	343,121	32	7,638	1
D DEIS	316,263	29	255,013	24	505,700	47	7,638	1
D FEIS	312,668	29	292,934	27	471,596	43	7,192	1
E	225,334	21	302,950	28	549,065	51	7,265	1
F	444,246	41	275,306	25	357,797	33	7,265	1

Note that current direction allows for a change in tactics from a wildland fire use strategy to a confinement strategy. For example, in the Forest Plan, an AMR for prescription control may be assigned to a particular wilderness area. During subsequent development of the Fire Management Plan, however, it may be determined that direct control is a more suitable AMR because of the small size of the wilderness area and/or the presence of values at risk. However, one may not deviate from a containment strategy, such as direct control, to a fire use strategy, such as prescription control.

The table below displays the percentage of acres of Fire Regime 1 and 2, Condition Classes 2 and 3, and acres of high and extreme hazard classes (see Existing Condition section) being treated annually for each alternative by prescribed fire and mechanical fuels treatments. No activity created fuels treatment or timber harvest acres are contained in the following figures. It is important to note that, while prescribed burning results in benefits to the fuels profile and/or condition class, many times the main goal of the burn will be to improve wildlife habitat or range condition.



Table 2-20. Annual Fuel Treatment by Alternative. (Acres)

	Alternative						
	A	B	C	D DEIS	D FEIS	E	F
Acres of Treatment (Desired Budget)	3,750	5,250	5,250	6,000	6,000	6,000	3,300
Acres of Treatment (Experienced Budget)	2,500	3,500	3,500	4,000	4,000	4,000	2,200
Maximum Percent of fire regime 1 & 2 and Condition Class 2 & 3 Treated per Decade	0.9%	1.2%	1.2%	1.4%	1.4%	1.4%	0.8%
Maximum Percent of High and Extreme Hazard Ratings Treated per Decade	5%	7%	7%	8%	8%	8%	4%

In addition, 26 communities at risk, as identified by the State of Wyoming and US Forest Service, occur in each of the alternatives. These areas will be managed based on guidance in Management Area 7.1, Residential/Forest Interface.

## Scenic Resources

Each alternative developed for the draft forest plan revision provides a range of management area prescriptions and each management area prescription is assigned the proposed scenic integrity objective(s) based on existing scenic integrity, scenic classes and theme, setting, and desired condition of management area. Scenic integrity objectives assigned to management area prescriptions guide the amount, degree, intensity, and distribution of management objectives needed to achieve the desired condition of the landscape. Distribution includes space and time. Standards and guidelines in the Revised Plan include the scenic integrity objectives. Refer to existing scenic integrity level (ESI) for definition of scenic integrity.

Table 2-21. Proposed Scenic Integrity Objectives (SIO) for alternatives in acres.

SIO	Alt A	Alt B	Alt C	Alt D DEIS	Alt D FEIS	Alt E	Alt F
V High	78,848	78,850	78,850	139,709	106,881	83,403	350,331
High	10,405	88,325	151,085	235,226	217,916	337,623	307,236
Moderate	505,092	371,667	404,149	338,016	388,556	343,066	217,084
Low	490,270	545,773	450,529	371,664	371,035	320,522	209,963

## Communities

**Employment:** The largest absolute effects in employment would be felt in manufacturing (sawmills) and trade (tourism) in Alternatives A through E. Under the experienced budget level, employment would rise by about 10 percent for Alternative D FEIS, and up to 11 percent for Alternative B. For Alternative F, nearly 420 jobs would be lost – mostly in trade and services associated with reduced snowmobile use.

Table 2-22. Projected Employment by Major Industry by Alternative in 2010.

Industry	Base year (2001)	Change in Jobs by Alternative in 2010						
		A	B	C	D DEIS	D FEIS	E	F
Experienced budget level								
Agriculture	54	5	5	5	5	5	3	-12
Mining	2	0	0	0	0	0	0	0
Construction	7	3	4	3	3	3	2	-1
Manufacturing	28	71	86	71	71	71	47	-1
Transportation Comm, & Utilities	41	8	9	8	8	8	6	-6
Trade	1,344	106	110	106	106	106	100	-328
Finance, Insurance, & Real Estate	38	5	5	5	5	5	4	-6
Services	597	39	42	39	39	39	36	-57
Government	283	7	8	7	7	7	5	-6
Total forest management	2,395	243	270	243	243	243	204	-418
Percent change from 2001	---	10.2%	11.3%	10.2%	10.2%	10.2%	8.5%	-17.4%
Full budget level								
Total forest management	2,395	713	687	672	646	631	604	-179
Percent change from 2001	---	29.7%	28.7%	28.1%	27.0%	26.4%	25.2%	-7.5%

**Tourism:** Nearly all recreation use is expected to increase in the near future. One of the most popular activities in the Medicine Bow National Forest is snowmobiling. This winter activity has become a very important for both locals and tourists in recent years. Growth of snowmobiling in Wyoming is expected to exceed the national average (Taylor and Lieske 2002). Because of resource considerations in Alternative F, snowmobile use is projected to be the only recreation activity constrained by management in 2010. These constraints will cause reductions in winter employment and income in communities such as Saratoga, Encampment, and Laramie. Because of these constraints, winter-

based employment in 2010 will drop from current levels by about 400 jobs under Alternative F. Restrictions on non-trail snowmobile riding will occur under other alternatives, but adjustments by users are anticipated. Experience levels may drop with some increased crowding on trails, but use levels are not anticipated to change substantially. Employment associated with other winter recreation activities are expected to increase by about 20 jobs over current levels, and are included in the total winter-based estimates.

Because growth in summer recreation is expected to be healthy, tourism-employment in 2010 should increase by about 50 jobs. Income from tourism follows a pattern similar to employment.

**Timber program:** The timber industry in the southern Medicine Bow NF area has been undergoing major changes. Considered in the analysis were production capacities of local mills running with one and two shifts, possible mill closures, Medicine Bow NF harvest levels since 1986, timber products from fuel reduction management, anticipated Forest budget limitations, supplies from the nearby national forests, and supplies from state and private ownerships. Estimates of timber-related economic effects under each alternative were ultimately based upon a one-shift production capacity for all local mills. Employment stemming from the processing of timber from the Medicine Bow National Forest has been very low in recent years. Estimates for 2010 show significantly higher levels of employment. Such changes are not achieved overnight, but may require several years to realize. In the DEIS, it was estimated that such harvest levels could not be reached for 10 years. Based upon more recent timber program increases, it now appears that even the highest harvest levels in this FEIS could be achieved by 2010. Most of these changes can be expected in the communities that have processing facilities or from which employees commute (e.g. Walden).

**Demographics:** Alternatives most likely to affect populations are those that require a longer adjustment period for existing economic activity. Since the economy of these communities is reliant upon ranching, timber, and tourism, it can be expected that Alternative F would require the greatest adjustment, followed by Alternative E, D FEIS, D DEIS, C, A, and B. None of the alternatives would otherwise alter current demographic trends in these parts of Wyoming and Colorado.

**Local Governments:** Upward trends in rural residential development are expected to continue in Wyoming apart from any change in the Medicine Bow Forest Plan. Areas where development on private lands adjoins the National Forest boundary can raise special problems related to wildfire and local government services. The specialized management of adjoining National Forest System lands is one way that the Forest Service and local governments can collaborate on solutions for these unique problems. Management Area (MA) 7.1, Residential/Forest Interface, is designed for such intermixed lands. This

management area has been applied near 26 communities and developments inside and around the Forest. Specific acres have not been identified in the plan, but the effective perimeter around these 26 locations could extend up to about  $\frac{1}{4}$  mile. Information to quantify the potential cost savings or increased effectiveness of services associated with each alternative is unavailable. However, the Residential/Forest Interface Management Area has been designed to greatly benefit local governments and communities. Continued collaboration during implementation will improve the benefits of this management area.

Revenues to counties have been examined in two ways: Federal payments and sales tax. Because all of the counties that contain lands managed by the Medicine Bow National Forest have elected to receive the full payment amount, both Forest Payments (25% Fund) and PILT payments are now independent of Forest outputs. Consequently, no change in Federal payments to states and counties is anticipated. Tourism tax revenues are expected to change only as a result of Alternative F which severely restricts snowmobile use. Forest management under other alternatives should not affect anticipated growth in summer or winter tourism, and thus sales and lodging tax receipts should grow with estimated tourism growth. These revenues are estimated to be 6 percent higher than they were in 2001. Under Alternative F, revenues would drop from 2001 levels by about 19 percent.

### ***Travel Management***

The number of miles of system roads will remain relatively stable for alternatives A, B, C, D, and E. Reductions in the road system will mostly result from project-level decisions to close unneeded roads and will be similar across those alternatives. Maintenance, improvement, and reconstruction of most Forest roads will continue and remain at levels similar to the present depending on the allocation of acres to management areas with emphasis on roadless characteristics, such as wilderness, proposed wilderness, wildlife corridors, wildlife emphasis areas and backcountry non-motorized recreation. Alternative F has a greater portion of the Forest allotted to these management area prescriptions and will show significant decreases in the Forest transportation system. Roads in these management area prescriptions could either be decommissioned or converted to motorized or non-motorized trails.

All alternatives will implement Phase II of the Travel Management decision (October 2000). Location of roads to be retained as part of the transportation system will be determined in Phase II Travel Management decisions over the next four years.

The miles of road planned for decommissioning includes classified roads as well as existing unclassified roads that are not part of the transportation system. Additional budget needs to accomplish an accelerated rate of decommissioning would need to be supplemented from other resources. Other alternatives would

## THE ALTERNATIVES

accomplish decommissioning at the experienced budget level (18 miles per year).

Table 2-23. Changes to road system miles by alternative (Estimated) over the life of the Plan.

	Alternatives						
	A	B	C	D DEIS	D FEIS	E	F
Total Proposed Road System Miles (estimated)	2,403	2,400	2,350	2,223	2,244	2,210	1,754
Miles to Decommission (includes unclassified roads)	558	561	611	738	711	751	1,207
Years to accomplish decommissioning at desired condition budget levels	21	21	23	27	26	7	7
Miles per year to decommission at desired condition budget levels	27	27	27	27	27	112	181
Years to accomplish decommissioning at experienced budget levels	31	31	34	41	41	10	10
Miles per year to decommission at experienced budget levels	18	18	18	18	18	75	121

## Supplemental Tables

Supplemental Tables or S-Tables were previously included in the DEIS at the end of this chapter, Chapter 2. To assist in monitoring the Revised Plan, we moved the Supplemental or S-Tables to Appendix H of the Revised Plan. There may be references throughout the FEIS and FEIS Appendices to S-Tables or Supplemental Tables. Please refer to Revised Plan - Appendix H for that information. The Supplemental or S-Tables include:

- Table S-1. Summary of Key Land Allocations: Management Area Prescriptions
- Table S-1a. Summary of Key Land Allocations: Summer/winter ROS, Travel Management, Special Area Designations, and Leasing Stipulations.
- Table S-2. Activities and Outcomes.
- Table S-3. Forest Plan Budget Allocations by Alternative.
- Table S-3a. Cost Centers

As referenced in these tables, Alternative D DEIS represents Alternative D as it was presented in the DEIS. Alternative D FEIS represents Alternative D based on modifications made after publication of the DEIS. These changes were primarily based on comments received after publication of the DEIS. Total acreages for Alternative D FEIS have been updated to reflect a variety of land information updates. Because these updates represent less than one percent of the land base, and they do not represent a potential change in effects, only Alternative D FEIS reflects the updated information